



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
 United States Patent and Trademark Office
 Address: COMMISSIONER FOR PATENTS
 P.O. Box 1450
 Alexandria, Virginia 22313-1450
 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/734,847	12/11/2003	Burton Warren Hanson	7747.2US01	1989
23552	7590	09/08/2005	EXAMINER	
MERCHANT & GOULD PC P.O. BOX 2903 MINNEAPOLIS, MN 55402-0903			BRITTAIN, JAMES R	
			ART UNIT	PAPER NUMBER
			3677	
DATE MAILED: 09/08/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/734,847

Applicant(s)

HANSON, BURTON WARREN

Examiner

James R. Brittain

Art Unit

3677

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 June 2005.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 17,18,24-30 and 32-42 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 17,18,24-30 and 32-42 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 June 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 04252005.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Specification Objections

The specification is objected to because while new figure 9 has been approved, the Brief Description of the Drawings has not been amended to reflect the new figure. Correction is required.

Drawing Objections

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the embodiment with a blocking member having a handle and also having "a drive pawl pivotably attached to the pivot lever" (claim 34, line 8) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 34-42 are rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The limitation "a drive pawl pivotably attached to the pivot lever" (claim 34, line 8) is misdescriptive because the drive pawl is slidably attached to the pivot lever and since the only species shown clearly has the drive pawl slidably attached to the pivot lever, the limitation is being interpreted as the drive pawl is slidably attached to the pivot lever. Additionally, the limitation "braces blocking pawl" (claim 34, line 13) lacks the appropriate article so appears to

Art Unit: 3677

be a double inclusion of the element first referred to on line 11 and therefore renders the claim indefinite. Claims 35-42 each depend from claim 33. However, each of these claims is written as an article claim beginning "A bi-directional tensioning device". Claim 33 is not drawn to a "bi-directional tensioning device". However, claim 34 is drawn to "A bi-directional tensioning device" and claims 35-42, while indefinite as to their scope are being interpreted as depending from claim 34, not 33.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 34-42 are rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Applicant is for the first time claiming a species with the blocking member having a handle and there is no showing in the specification as filed of an embodiment with a blocking member having a handle and also having "a drive pawl pivotably attached to the pivot lever" (claim 34, line 8). The only showing in the specification as filed is for the drive pawl to the slidably attached to the pivot lever. The remaining claims contain new matter since they are considered to depend from claim 34, a claim that includes new matter.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. §103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 3677

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 17, 18, 24-26, 28 and 30 are rejected under 35 U.S.C. §103(a) as being unpatentable over DE 3017371 in view of Dolezych (EP 311828) and Berg (US 5832569).

DE 3017371 (figures 2-4) teaches a bi-directional tensioning device for tensioning an anchoring line 24 and a threadable line 3, 21 comprising: a ratcheting system 2, 26 serving to wind the threadable line; a first and second anchoring line attachment means 13, 18 positioned on opposite ends of the ratcheting system, wherein the anchoring line may be removably attached to either anchoring line attachment means. The ratcheting system includes slidably mounted spring-biased drive 6 and blocking 10 pawls. The strap 3 is movable over the blocking mechanism as shown in figure 3. The difference is that the bi-directional tensioning device of DE 3017371 lacks a clear showing of first and second guide means to aid in winding the threadable line (but does show a strap guide 13 with parallel plates in figure 4) wherein the first guide means interconnects the two parallel plates and is spaced next to the support surface of the blocking mechanism and the second guide means includes a support surface interconnecting the parallel plate members and is spaced between the second anchoring line attachment means and the rotatable drive element. However, Dolezych (EP 311828, figure 1) teaches tensioning device structure including a ratcheting system and guide shafts 2, which are spaced from shafts 3 so as to aid in defining slots for the two straps to pass through. The guide shafts 2 number three with one at each end and the third located next to the blocking mechanism. Further, Berg (figure 8) teaches the use of a series of bars 19, 23 extending between the parallel plate members, acting as support surfaces and guiding the strap so as to have a simpler connection of the strap to the

Art Unit: 3677

tensioning device. As control of the tensioning device of DE 3017371 would be desirable so as to prevent the tensioning device from swinging away from the straps, it would have been obvious to modify the tensioning device of DE 3017371 so that it would have first and second guides to aid in guiding the threadable line as taught by Dolezych (EP 311828) and further modification such that the guide shafts 2 of Dolezych (EP 311828) comprise a support surface between the parallel plate members spaced from the anchoring means would have been obvious in view of Berg (figure 8) suggesting the use of a series of bars 19, 23 extending between the parallel plate members, acting as support surfaces and guiding the strap so as to have a simpler connection of the strap to the tensioning device. As to claims 24 and 25, the tensioning devices of DE 3017371 and Dolezych (EP 311828) have the cam surfaces of the teeth oriented to have either a "push" or "pull" power stroke, thereby rendering obvious the subject matter of these claims. In regard to claim 28, the drive pawl of the tensioning device of DE 3017371 is considered to be lengthened.

Claims 27 and 29 are rejected under 35 U.S.C. §103(a) as being unpatentable over DE 3017371 in view of Dolezych (EP 311828) and Berg (US 5832569) as applied to claims 17 and 26 above, and further in view of Huang (US 5778496).

Further modification of the bi-directional tensioning device of DE 3017371 such that a torsional spring biases the drive pawl and the drive pawl is provided with a handle by means of which it may be actuated would have been obvious in view of Huang (figure 1) teaching that a torsion spring 22 provides a compact spring for biasing the slidable drive pawl 21 and that a handle 211 is useful to control the drive pawl.

Claims 34-36, 38 and 40-42 are rejected under 35 U.S.C. §103(a) as being unpatentable over DE 3017371 in view of Dolezych (EP 311828) and McMillen (US 1001547).

Art Unit: 3677

DE 3017371 (figures 2-4) teaches a bi-directional tensioning device for tensioning an anchoring line 24 and a threadable line 3, 21 comprising: a ratcheting system 2, 26 serving to wind the threadable line; a first and second anchoring line attachment means 13, 18 positioned on opposite ends of the ratcheting system, wherein the anchoring line may be removably attached to either anchoring line attachment means. The strap 3 is movable over the blocking mechanism as shown in figure 3. The ratcheting system includes slidably mounted spring-biased drive 6 and blocking 10 pawls and while the claim language indicates the drive pawl is "pivotably" attached to the pivot lever, this limitation is indefinite by reason of being misdescriptive as indicated above and the limitation is being acted on as directed to a slidable connection for the reasons indicated above. The difference is that the bi-directional tensioning device of DE 3017371 lacks a clear showing of first and second guide means to aid in winding the threadable line (but does show a strap guide 13 with parallel plates in figure 4) and both the blocking pawl and the drive pawl lack handles. However, Dolezych (EP 311828, figure 1) teaches tensioning device structure including a ratcheting system and guide shafts 2, which are spaced from shafts 3 so as to aid in defining slots for the two straps to pass through. The guide shafts 2 number three with one at each end and the third located next to the blocking mechanism. Further, McMillen (figure 1) teaches tensioning device structure and that a handle 16' is useful to control the spring-biased blocking pawl 16 so as to be disengaged from the ratchet wheels 4 and that a handle 14' is useful to control the spring-biased drive pawl 8 so as to be disengaged from the ratchet wheels 4 so as to provide improved efficiency of use. As control of the tensioning device of DE 3017371 would be desirable so as to prevent swings away from the straps, it would have been obvious to modify the tensioning device of DE 3017371 so that it would have first and

Art Unit: 3677

second guides to aid in guiding the threadable line as taught by Dolezych (EP 311828) and further modification of the bi-directional tensioning device of DE 3017371 such that the blocking pawl is provided with a handle and the drive pawl is provided with a handle by means of which each may be actuated would have been obvious in view of McMillen (figure 1) teaching that a handle 16' is useful to control the blocking pawl 16 so as to be disengaged from the ratchet wheels 4 and that a handle 14' is useful to control the drive pawl 8 so as to be disengaged from the ratchet wheels 4 so as to provide improved efficiency of use. As to claim 38, the guide shafts 2 of Dolezych (EP 311828) are circular in cross-section and therefore have a gradient that is curved and it would have been obvious to utilize such a configuration as it would aid in threading the strap through the gap between the shafts. In regard to claim 40, the drive pawl of the tensioning device of DE 3017371 is considered to be lengthened. As to claim 41, the tensioning devices of DE 3017371 and Dolezych (EP 311828) have the cam surfaces of the teeth oriented to have either a "push" or "pull" power stroke, thereby rendering obvious the subject matter of this claim that provides for the cam surfaces of the teeth to be oriented to have a power stroke.

Claim 39 is rejected under 35 U.S.C. §103(a) as being unpatentable over DE 3017371 in view of Dolezych (EP 311828) and McMillen (US 1001547) as applied to claim 34 above, and further in view of Speich (US 4584742).

Further modification of the bi-directional tensioning device of DE 3017371 as modified by Dolezych (EP 311828) such that the guide shafts 2 of Dolezych (EP 311828) are bolts would have been obvious in view of Speich (figure 1) teaching the desirability of using a guide shaft

Art Unit: 3677

formed by a rotatable sleeve 17 mounted on a bolt 20 so as to permit removal of the guide and easier threading of the strap.

Claim 37 is rejected under 35 U.S.C. §103(a) as being unpatentable over DE 3017371 in view of Dolezych (EP 311828) and McMillen (US 1001547) as applied to claim 34 above, and further in view of Berg (US 5832569).

Further modification of the bi-directional tensioning device of DE 3017371 as modified by Dolezych (EP 311828) such that the guide shafts 2 of Dolezych (EP 311828) comprise a support surface between the parallel plate members spaced from the anchoring means would have been obvious in view of Berg (figure 8) suggesting the use of a series bars 19, 23 extending between the parallel plate members, acting as support surfaces and guiding the strap so as to have a simpler connection of the strap to the tensioning device.

Claims 32 and 33 are rejected under 35 U.S.C. §103(a) as being unpatentable over McMillen (US 1001547) in view of Kranz (US 1287050).

McMillen (figure 1) teaches a method for partially releasing a chain from a tensioning device, the tensioning device including a ratchet wheel 4 serving to wind the chain, the ratchet wheel including directionally oriented notches, a drive part 8 in engagement with a first directionally oriented notch of the ratchet wheel, the drive part serving to turn the ratchet wheel in a second direction by engaging the first notch only when the drive part is moved along a distance in the second direction, wherein the drive part blocks movement of the ratchet wheel in the first direction when the drive part is maintained at a point along the distance, and a blocking mechanism 16 in blocking engagement with a second directionally oriented notch of the ratchet wheel, the blocking mechanism serving to block movement of the ratchet wheel in the first

Art Unit: 3677

direction, and the blocking mechanism including a handle portion 16', the method inherently taught by this structure comprising: positioning and maintaining the drive part at a point along the distance such that the drive part is capable of moving in the first direction; pulling the handle portion of the blocking mechanism to remove the blocking mechanism from the blocking engagement with the second notch of the ratchet wheel; moving the drive part in the first direction so as to enable the ratchet wheel to turn in the first direction, thereby moving the second notch past the blocking mechanism; and releasing the handle portion of the blocking mechanism to enable the blocking mechanism to return to blocking engagement with a third directionally oriented notch of the ratchet wheel. The difference is that McMillen teaches utilizing a chain as the tensioning element rather than a line. The chain is threadable by beating past through the gap between the drive part 8 and the reel. However, Kranz (figures 1, 2) teaches a method of utilizing a tensioning device including a ratchet wheel, the ratchet wheel including directionally oriented notches, a drive part that is pivotally connected to a handle, a blocking mechanism pivotally connected to the frame, and wherein the tensioning device can be either a chain or cable as indicated on page 1, lines 32-35. As it is beneficial to use different tensioning elements not just the chain, it would have been obvious to modify the device of McMillen in order to utilize a cable as taught by Kranz to be a conventional equivalent.

Response to Arguments

Applicant's arguments filed in response to the last office action have been fully considered but they are not persuasive.

Applicant argues that Dolezych fails to show the threadable line over the blocking mechanism. However, the DE 3017371 reference shows such structure and Dolezych is utilized

for its teaching of guides that is applicable to the teachings of DE 3017371. Applicant asserts that the buckle of Berg is used around a person's waist (remarks, page 11, ¶2), however Berg does not appear to state this and to the contrary indicates the buckle developed by Berg includes improvements over a previous buckle utilized with "high loads" (col. 1, lines 30-43).

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

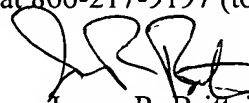
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James R. Brittain whose telephone number is (571) 272-7065. The examiner can normally be reached on M-F 5:30-2:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, J. J. Swann can be reached on (571) 272-7075. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3677

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



James R. Brittain
Primary Examiner
Art Unit 3677

JRB